

Freshwater Fisheries Monthly Report: December 2021

Freshwater Fisheries - Stock Assessment

Deep Creek Lake - Staff met with a number of researchers and managers to discuss work being conducted on Deep Creek Lake. Each representative shared some information about past work and shared future monitoring/research plans for the lake and the surrounding watershed. A follow-up meeting to address specific issues raised in this meeting is planned for mid-January 2022. Staff presented fisheries work conducted during 2021 on the lake and shared plans for 2022 monitoring and research, including a walleye tagging study.

Freshwater Fisheries - Habitat and Water Quality

Environmental Review - Provided aquatic resource information for the following environmental review projects:

- Two applications for the construction of new stone revetments on the shoreline of Deep Creek Lake. Recommendations were made to protect lake resources and have appropriate personnel monitor projects to ensure best management practices (BMPs) are followed.
- An application for a culvert replacement on Bluelick Road, Grantsville. Comments were provided to protect the robust brook trout population within Bluelick Run, minimize disturbance during construction, and restore the site after the project is completed.
- A roadway improvement project along Interstate 68 in the headwaters of the Savage River. Additional comments regarding BMPs will be provided with the formal project review.
- A modification of the Use III (nontidal coldwater) time of year waiver request to complete a utility crossing in the lower reach of Braddock Run.
- A Washington County Soil Conservation District stream restoration project to stabilize streambanks, increase riparian buffers and improve trout habitat in Little Antietam Creek.

Brook Trout Habitat - Staff attended a site visit with representatives from both Allegany and Garrett County Soil Conservation Districts, Trout Unlimited and the US Fish and Wildlife Service to tour brook trout habitat restoration projects completed in western Maryland. In addition, future collaborations and projects were discussed.

Fish Passage - Staff participated in an in-house meeting to discuss the possible increase in funding for fish passage projects as a result of the federal infrastructure bill being passed. Thoughts about projects were discussed and a list of potential fish passage restoration projects was developed for the fisheries in West Region I (Garrett and Allegany Counties).

Lake Habeeb - Staff participated in a meeting to discuss water appropriations from Lake Habeeb (Rocky Gap). Discussions were focused on maintaining the appropriate lake storage to benefit the downstream coldwater resources as well as the recreational lake users.

Bainbridge Development Project - Staff were engaged with state, local, and county agencies on project/permit reviews. Freshwater Fisheries and Environmental Review staff participated in a meeting to further address department comments and concerns on the ongoing Bainbridge development project near Port Deposit, submitted to Maryland Department of the Environment

(MDE) and Cecil County. The approximately 1,000-acre property previously owned by the U.S. Navy is being developed for commercial use. The property contains significant portions of several coldwater streams that support wild trout. Freshwater Fisheries comments focused on improvements which could be made to reduce thermal impacts and reduce sediment transport off site.

Smithville Lake - Staff have been communicating regularly with MDE's Water Supply Program regarding an application for water withdrawal from Smithville Lake. Smithville Lake Fishery Management Area is owned and managed by Freshwater Fisheries for public fishing. Reduced water flow into Smithville Lake in periods of dry weather has resulted in fish kills downstream due to lack of spillover from the lake. Increased withdrawals could exacerbate the problem if proper safeguards are implemented.

Freshwater Fisheries - Stocking and Population Management

Trout - Staff assisted Albert Powell Hatchery with the stocking of 2,000 pre-season put-and-take trout (rainbow, golden, brown) into the Patapsco River, Daniels area.

Staff reviewed the spring adult trout stocking schedule and provided comments to the Coldwater Production Manager to best utilize the allotment of fish across Maryland.

Freshwater Fisheries - Outreach

Staff provided customer service information for inquiries regarding:

- Deep Creek Lake information
- Trout stocking information
- Directing a caller to appropriate persons to obtain information on freshwater mussels in Jennings Randolph Lake
- Trout fishing regulation information

Deep Creek Walleye Tagging - Western Region I is working with Eric Wilson and Kevin Ensor (Fishing and Boating Services, Stakeholder Outreach and Services Division) to develop an informative sign for a future walleye study to take place on Deep Creek Lake. The purpose of the sign is to educate anglers about a tagging study that will be taking place on the lake in order to estimate angler harvest rates on Deep Creek Lake's walleye population.

Presentation - Staff conducted an informative talk for a Garrett College Natural Resource and Wildlife Technologies students' seminar class. "A year in the life of a fisheries biologist" was the topic of discussion to inform students of general work duties and studies to give students an idea of what a fisheries biologist does throughout the year.

Provided comments to the Stakeholder and Outreach Services Division regarding the Fish Facts page and potential collaboration with Bass Pro Shops.

Trout Egg Boxes - Assisted Stevenson University students with the installation of tiger trout egg boxes in an unnamed tributary to Morgan Run. Five thousand tiger trout eggs were implanted into these artificial redds. Future surveys will attempt to quantify the efficacy of these artificial redds.

Watershed Data - Provided statewide trout watershed information to Trout Unlimited to support the creation of their 2021-2026 Strategic Plan. This effort aims to "identify a national network of shared priority waters for native and wild trout and salmon, and take strategic action to care for and recover them".

Freshwater Fisheries - Angler Access

Piney Reservoir - Western Region staff is in the early planning phase of a new American Disabilities Act (ADA) fishing access area at Piney Reservoir located in Garrett County, Maryland. Staff will be working with the Town of Frostburg, Garrett County Planning, and Program Open Space to secure funding and construct the new access area. An on-site meeting was held to discuss project ideas, locations, and potential partners.

Fishery Management Areas (FMAs)– Conducted a condition check and trash clean up at McCoole and Black Oak FMAs.

Freshwater Fisheries - Invasive Species

Invasive Catfish Data - Continued to compile and organize commercial catfish harvest data from Maryland waters to determine effort and spatial patterns of harvest.

Blue Catfish Diet Study - Additional data on diets from blue catfish collected from the tidal Patuxent River (Anne Arundel, Charles Counties) was gathered from DNA barcoding completed by US Geology Survey scientists at the Eastern Ecological Science Center (Leetown, WV). The DNA data identified several new prey species not identified through gross examination.

Freshwater Fisheries – Coldwater Fisheries Program

Participated in a site visit to Sand Spring Run. Several restoration projects have improved instream habitat and expanded the resident brook trout population. Topics of discussion included continuing monitoring efforts, upcoming projects to expand the existing restoration work, and opportunities for collaboration with stakeholders.

Attended a site visit in the Frederick City Watershed with Frederick City staff and stakeholders. The site visit identified sources of habitat degradation in Fishing Creek that are caused by erosion and poor drainage along the watershed's gravel roads. Fishing Creek supports a robust brook trout population that is routinely monitored and is considered to be one of the state's stronghold populations. Pursuit of projects that minimize degradation of in-stream habitat are needed to protect the brook trout population and other aquatic resources in Fishing Creek. All attendees supported stakeholder efforts to secure funding for projects that would improve drainage and reduce erosion at targeted locations. Staff will continue to work with city officials and stakeholders to achieve an optimal outcome.

Participated in an Eastern Brook Trout Joint Venture meeting to discuss the federal infrastructure bill and possible funding opportunities for projects that may improve brook trout habitat. All attendees were asked to develop and prioritize a list of potential projects that could be funded by the infrastructure bill. The list will be submitted to the Eastern Brook Trout Joint Venture team for review and discussion. Efforts to secure funding for high priority projects are on-going.

Staff assembled a list of known fish blockages including dams, culverts, and bridges that are impeding the movement of brook trout and other resident species across the state. This list was submitted to our fish passage coordinator who is coordinating Maryland's efforts towards obtaining funding for Aquatic Organism Passage through the new infrastructure bill.

Freshwater Fisheries - Tidal Bass Program

Black bass angler Rob Dahlin was randomly selected to win a \$25 Bass Pro Shops gift card for reporting a tagged largemouth bass as part of an interjurisdictional effort to monitor the largemouth bass population on the tidal Potomac River.



Staff mends seines in preparation for trout harvest. Basically, sewing a bunch of holes together.

Eagles and herons are big fans of our trout, and we've come to accept that some losses to them are inevitable. Occasionally, a pair of eagles will gang up on a heron, usually just until the heron drops its fish and they can grab it, but sometimes they continue to press the attack.



Guess eating fish day after day does get old.

Manning Hatchery acquired an AHAB (Aquatic Habitat) system from the US Fish and Wildlife Service. Our new mussel propagation system is a series of tanks that allows us to separate each host fish. We can now run trials to determine what host species is best suited for culture by monitoring individual drop off rates per fish and species.



AHAB Unit

Hatcheries - Unicorn Lake Fish Hatchery

Staff constructed channel catfish nesting boxes for the hatchery ponds. Channel catfish require cavities to spawn and reproduce. These constructed nesting boxes will provide the necessary structure needed for hatchery brood fish to successfully reproduce. Once the eggs are fertilized, staff will harvest them from the boxes and transfer them to the Joseph Manning Hatchery for summer grow-out.



Constructing catfish spawning boxes.

The hatchery fish transportation truck had annual service and DOT inspection performed this month. DOT inspections are performed to ensure commercial vehicles are in a safe working condition.

Staff performed a full inventory of channel catfish in hatchery ponds at the Unicorn Lake Fish Hatchery with assistance from Anadromous Restoration and Eastern Freshwater Fisheries staff. Inventories are completed to ensure the supply is available for future stockings. Inventories also give staff an understanding of the biomass in the ponds and help determine proper feeding rates for rearing.